

EPIDEMIOLOGICAL ANALYSIS OF COMPLIANCE TAKING THE EXAMPLE OF PERSISTENCE WITH ANTIHYPERTENSIVES

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In the treatment of chronic, often asymptomatic diseases such as diabetes or cardiovascular disease, lack of medication adherence represents a major factor limiting the potential benefits of pharmacotherapy. The reasons for non-adherence are multifaceted, but properties of the drug itself possibly play a considerable role.

The aim of this study was to analyse differences in persistence (i.e., refill compliance) between different classes of antihypertensive agents. Data were extracted from the DAPI database, which contains anonymous, patient-individualised drug dispensing data from more than 80 % of German pharmacies. The study population consisted of 15,070 insulin-dependent diabetic patients receiving antihypertensive agents over a period of at least 24 months during 2001 and 2003. Patients were defined as not persistent if the gap between two subsequent prescriptions exceeded the calculated medication supply of the preceding prescription by more than 3-fold, based on an assumed daily utilization of 1 DDD (defined daily dose).

Persistence rates after 24 months were highest for AT₁ antagonists (90.2 %), followed by ACE inhibitors (82.2 %) and calcium channel blockers (81.6 %), whereas persistence was lower with diuretics (77.0 %) and especially poor with betablockers (62.9 %). Interesting differences in persistence rates between single drug substances such as clonidine vs moxonidine (62.7 % vs 92.9 %), nebivolol vs other beta₁-selective betablockers (87.9 % vs 62.1%) as well as monotherapy vs combination therapy such as ACE inhibitors alone or combined with diuretics (79.2 % vs 90.2 %) were detected.

These results – although not corrected for other factors such as age, gender or comorbidities – suggest that antihypertensive agents with favourable efficacy and tolerability profile and a once-daily dosing regimen may provide greater persistence with therapy.